

19970605.ba ba-por01.476

>1476

>From owner-boatanchors@sco.theporch.com Wed Jun 4 00:02:52 1997

>Return-Path: <owner-boatanchors@sco.theporch.com>

>Received: from sco.theporch.com (sco.theporch.com [207.234.31.38])

> by uro.theporch.com (8.8.6.Beta4/A-UX3.1.1) with ESMTTP id AAA09383

> for <SHIMSHON@URO.THEPORCH.COM>; Wed, 4 Jun 1997 00:02:51 -0500 (CDT)

>Received: from sco.theporch.com (localhost [127.0.0.1])

> by sco.theporch.com (8.8.6.Beta4/SCO-5.0.2) with SMTP id FAA28003;

> Wed, 4 Jun 1997 05:02:24 GMT

>Message-Id: <199706040502.FAA28003@sco.theporch.com>

>Date: Wed, 4 Jun 1997 00:02:24 CDT

>Sender: owner-boatanchors@theporch.com

>From: boatanchors@theporch.com

>To: Amateur Radio Equipment Using Vacuum Tubes <boatanchors@sco.theporch.com>

>Subject: BOATANCHORS digest 1476

>Mime-Version: 1.0

>Content-Type: multipart/mixed; boundary="--

__ListProc__NextPart__865400359432700179"

>X-Listprocessor-Version: 8.1 -- ListProcessor(tm) by CREN

>Status: 0

BOATANCHORS Digest 1476

Topics covered in this issue include:

- 1) WTB SP400 HQ120X
by steven@ix.netcom.com (Steve M Fried)
- 2) Bendix TA-12 series transmitters
by Michael Hanz <AAFRadio@erols.com>
- 3) TMC Sideband exciter
by maccary@on-ramp.ior.com
- 4) Re: SX-100
by Jim Lockwood <jmlckwd@mindspring.com>
- 5) Nixie ID? -- for demo
by wallace@world.std.com (Andy Wallace)
- 6) Re: SX-100 QUIRKS
by Bob Roehrig <broehrig@admin.aurora.edu>
- 7) F.S. signal shifter
by w8kj@juno.com (Dewey K Jones)
- 8) HamCom
by Ronnie Hull <w5sum@ms1.nwla.com>
- 9) Re: TR4-C alignment
by Stanley Wilson <microres@crl.com>
- 10) OG3
by Mikhael Brown <mikhael@hpcmp13.sj.hp.com>
- 11) Re: TMC Sideband exciter
by Eugene Rippen <soundval@foothill.net>

- 12) Dow Key Relay
by Bill Richarz <bill.richarz@transprt.com>
- 13) outer limits of 12AX7
by bill@skeeter.frco.com (William Hawkins)
- 14) 04VI97 NR3 CK619 WB6TMY
by W B Reese <radions@metro.net>
- 15) 04VI97 NR4 CK220 WB6TMY
by W B Reese <radions@metro.net>
- 16) Limp Wire?
by "Dick Dillman" <ddillman@igc.apc.org>
- 17) Re: outer limits of 12AX7
by Ken Gordon <keng@uidaho.edu>
- 18) National FB-7 and FBX
by WJoeW@aol.com

Date: Tue, 3 Jun 1997 20:55:57 -0500 (CDT)
From: stevenn@ix.netcom.com (Steve M Fried)
To: boatanchors@theporch.com
Subject: WTB SP400 HQ120X
Message-ID: <199706040155.UAA21541@dfw-ix11.ix.netcom.com>

Would you believe I was flooded with replies mainly because I mentioned that I used to work at Hammarlund. It was great discussing various items about Hammarlund with the BA crowd!

However, of all the replies - no offer of a SP400 or HQ120X.

So Im still looking for a working clean: SP400 and HQ120X
Would consider also SP100 and 200 series with crystal filter.

Therere must be some BA that no longer wants to clutter up his ham shack with such "old stuff" (!).

73

Steve K2PTS
Schaumburg, IL

Date: Tue, 03 Jun 1997 22:08:40 -0700
From: Michael Hanz <AAFRadio@erols.com>
To: boatanchors@sco.theporch.com
Subject: Bendix TA-12 series transmitters
Message-ID: <3394F858.55D5@erols.com>
MIME-Version: 1.0

Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Ed Seib wrote:

> The PS/Modulator you're talking about, is it the MD141 series? I have such an
> animal, complete and working and use it as a utility and test PS/Modulator
> for various BA projects.

Unfortunately, no. It's the MP-28B. Uses a pair of 807s in a doghouse and a
500v dynamotor. Quite scarce, for some reason!

Date: Tue, 3 Jun 97 19:16:01 -0700 (PDT)
From: maccary@on-ramp.ior.com
To: boatanchors@sco.theporch.com
Subject: TMC Sideband exciter
Message-ID: <m0wZ5cH-001K36C@on-ramp.ior.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

I seem to have a knack for finding obscure stuff and the latest find is a
Technical Materials CBE-1 single sideband exciter. This thing looks like a
phasing rig with separate channels for the two sidebands with dB metering on
each, carrier supression control, BNC input for a 250 KC signal and a BNC
signal output at 250 KC @75 ohms. Top and bottom covers are held on with
DZUS fasteners on a rack-mount cabinet.

What is it good for? Would I have to do a lot of heterodyning to get it up
to even 80 meters? I'll take it to a hamfest a week from this Saturday so
what should I ask for it?

Mac--W0NAX
LAWRENCE MAC CARY --- A Subscriber at Internet On-Ramp, Inc.

Date: Tue, 03 Jun 1997 22:16:39 -0400
From: Jim Lockwood <jmlckwd@mindspring.com>
To: rmyers@rtp.ericsson.se,
"boatanchors@sco.theporch.com" <boatanchors@sco.theporch.com>
Subject: Re: SX-100
Message-ID: <3.0.1.32.19970603221639.006ae604@pop.mindspring.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

At 08:39 AM 6/3/97 -0700, Rick Myers wrote:

>Been spending some time inside my SX-100 Mark 1

>I suppose that the fact that it jitters a little when someone walks
>across the floor is "the nature of the beast". Kinda makes tuning
>interesting on the 14Mc and up bands. Anyone ever succeed at making it
>less sensitive to vibration?

"The nature of the beast" is quite accurate for an SX-100. It's one of its endearing quirks that make using one in a vintage station such a hands on experience.

OK, I'm stretching things a bit, but the sensitivity of an SX-100 to mechanical vibration is something of a nuisance.

One of my SX-100s is notably more stable than the others, however.

This particular unit has had stiffening wires (looks like #12 or maybe #10) soldered in place to keep the tuning cap shield from vibrating. This shield is the one that separates the rear section from the front section of the cap. My memory (I don't have my SX-100s to look at) is that it shields both the bandspread cap and the main tuning cap.

Anyway the stiffening wires attach to this shield, to the notch filter sub-chassis and to the forward end of the tuning capacitors.

This particular SX-100 has some other mods also, so I can't be sure that stiffening the tuning cap shield is solely responsible for the improvement in mechanical stability. However, it sure can't hurt to try it.

73,

Jim - km6nk/4

Date: Wed, 04 Jun 1997 02:26:08 GMT
From: wallace@world.std.com (Andy Wallace)
To: wallace@world.std.com
Cc: boatanchors@sco.theporch.com
Subject: Nixie ID? -- for demo
Message-ID: <33aed173.8659145@world.std.com>
Mime-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: quoted-printable

Hello, wallace@world.std.com (Andy Wallace)!=20

>Have here a Burroughs nixie, number=20
>8422 B-5991. 12 pins in an oval plus two in
>the center.=20

I know we have had discussions of nixies in the past... I can't find them right now! Argh. How do these work again? I see the two center pins go to the filament. Need a microscope or a kind BAer to tell me where the others go.

I also see a metal plate, and a wire mesh screen around the front of the numbers.=20

Are the numbers the grids, the plates, or what? And I assume it's filled with neon, thus the numbers glow.=20

I'd like to demonstrate this to some friends at work, so anyone who can tell me what voltages to put where would receive bountiful gratitude or at least an email of thanks.=20

Unfortunately I have a big gap in my reference books from the lifespan of the Nixie and thus no info available here!

--Andrew Wallace
anagram: WE LEAD CLAN WAR
wallace@world.std.com

Date: Tue, 3 Jun 1997 21:43:31 -0500 (CDT)
From: Bob Roehrig <broehrig@admin.aurora.edu>
To: JOHN SEHRING <JOHN_SEHRING.parti@ecunet.org>
Cc: boatanchors@theporch.com
Subject: Re: SX-100 QUIRKS
Message-ID: <Pine.ULT.3.96.970603214002.6302A-1000000@admin.aurora.edu>
Mime-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

On Tue, 3 Jun 1997, JOHN SEHRING wrote:

> The only problem with SX-100's is that they pull in frequency on 10 m as a
> function of 1. signal strength (via AGC action) and 2. RF gain control
> setting. One cure is to turn the AGC off but that's not a real cure.
> P.S. The RF gain control is in the cathode ct of the RF & one IF amp.

John and others: I am not familiar with the SX-100 but if it is a single conversion set with a 455 KC IF, then you may not be able to cure it.

My old HRO's have the same problem and in fact they point this out somewhere in the alignment dope as I recall. Problem is the closeness, percentage-wise of the osc freq and the RF signal causing pulling of the osc. Sometimes this can be improved by making sure the mixer does not have AGC or RF gain control.

E-mail broehrig@admin.aurora.edu 73 de Bob, K9EUI
CIS: Data / Telecom Aurora University, Aurora, IL
630-844-4898 Fax 630-844-5530

Date: Tue, 03 Jun 1997 22:53:07 EDT
From: w8kj@juno.com (Dewey K Jones)
To: boatanchors@theporch.com
Subject: F.S. signal shifter
Message-ID: <19970604.020909.5375.2.W8KJ@juno.com>

Hello Fellow B.A. folks:
For Sale: Meissner Signal Shifter(deluxe)
 untested but all filaments light
 has 10 meter coil set installed

 \$40 plus shipping.
Thanks, 73 Kevin W8KJ
w8kj@juno.com

Date: Tue, 3 Jun 1997 21:57:46 -0500
From: Ronnie Hull <w5sum@ms1.nwla.com>
To: boatanchors@theporch.com
Subject: HamCom
Message-ID: <1.5.4.16.19970603205550.20e773cc@ms1.nwla.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Okay, Im going to Arlington, From Shreveport, La, via I-20

how do I find hamcom?

Ronnie

Date: Tue, 3 Jun 1997 19:44:13 -0700 (PDT)

From: Stanley Wilson <microres@crl.com>
To: Bob/WB0AUQ <brainbol@lawrence.ks.us>
Cc: Boatanchor List <boatanchors@sco.theporch.com>
Subject: Re: TR4-C alignment
Message-ID: <Pine.SUN.3.91.970603194335.8255B-100000@crl6.crl.com>
Mime-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

Go by the manual and it should all come out ok. Nice thing about drake you did not need a bunch of test equipment to realign them or tune them up.

On Tue, 3 Jun 1997, Bob/WB0AUQ wrote:

> Hello BAers,
>
> I posted a question concerning a Drake rig to the Drake Users List
> couple days ago, no response. Anyone here can offer advise??
>
> I am working on a newly-acquired TR4-C xcvr and have a problem with
> VFO. The PT0 tracks well on all bands and is within tolerance, but
> believe I have a problem in premixer. If I calibrate on 80 meters,
> then 20 will also be right on, but 40, 15, and 10 are off.
> 40 about 5 kc and 15/10 about 20 kc. According to the manual,
> injection-xtal osc is setup by tuning L1, L2, and L5 for
> maximum negative voltage on 40/10/15. Is this correct, or do I
> adjust them for zero-beat on these bands?
>
> 73, Bob/WB0AUQ/brainbol@lawrence.ks.us
>

Date: Tue, 03 Jun 1997 20:08:21 -0700
From: Mikhael Brown <mikhael@hpcmp13.sj.hp.com>
To: Boatanchors <boatanchors@sco.theporch.com>
Cc: keng@uidaho.edu
Subject: OG3
Message-ID: <3394DBF4.2CC5@hpcmp13.sj.hp.com>
Mime-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

The OG3 is an 85 volt regulator. It is the same as the 5651A or 85A2. The operating current is 1.5 mA min and 3.5 mA maximum.

Hope this helps.

Mike

--

This is a private opinion or statement and is nobody's fault but mine.
No person, employer, or government should try to take credit for it

```
~~~~~
| Mikhael Brown                      email: mikhael_brown@sj.hp.com |
|      ///                          |
|      |                            |
|      /\                           |
|      N6WIG                        |
~~~~~
```

Date: Tue, 03 Jun 1997 20:15:01 -0700
From: Eugene Rippen <soundval@foothill.net>
To: maccary@on-ramp.ior.com
Cc: boatanchors@sco.theporch.com
Subject: Re: TMC Sideband exciter
Message-ID: <3394DDB5.5F11@foothill.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

This is the SSB adapter for the GPR-90 series of receivers.

My understanding is \$100 to \$150 for real clean working ones.

Gene

maccary@on-ramp.ior.com wrote:

>

> Technical Materials CBE-1 single sideband exciter. This thing looks like a
> phasing rig with separate channels for the two sidebands with dB metering on
> each, carrier supression control, BNC input for a 250 KC signal and a BNC
> signal output at 250 KC @75 ohms. Top and bottom covers are held on with

>

> What is it good for?

>

Date: Tue, 03 Jun 1997 23:32:35 -0400
From: Bill Richarz <bill.richarz@transprt.com>
To: boatanchors@sco.theporch.com

Subject: Dow Key Relay
Message-ID: <199706040333.DAA25781@sco.theporch.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Dow Key Relay...coil is 220VDC, but will pull in nicely with one diode & capacitor when applying 117VAC. \$35 plus UPS from zip 28227.

Thanks, Bill, N4DH

```
=====
Bill Richarz <N4DH> ex WA4VAF      | Internet: bill.richarz@transprt.com
10035 Little Creek Rd.             | Packet: N4DH@W4BFB.#CLT.NC.USA.NA
Charlotte, NC 28227                | Phone: (704) 545-9368
      HomePage: http://www.transprt.com/public/wricharz/index.htm
                        Alternate Email: n4dh@juno.com
=====
```

Date: Tue, 3 Jun 1997 22:52:53 -0500
From: bill@skeeter.frco.com (William Hawkins)
To: boatanchors@sco.theporch.com, glowbugs@www.atl.org
Subject: outer limits of 12AX7
Message-ID: <9706040352.AA02434@skeeter.bvc.frco.com>

Anybody out there with a working Tektronix 570 curve tracer for tubes? There's been a discussion of tube ratings following the discovery that some handbook said a 12AX7 was good for 7.5 watts dissipation. Most other books disagree, but the 12AU7 is good for 5+ watts with both sections dissipating half that.

Several people said you must not go beyond the limits, but I wonder what happens when you do. Suppose reduced life was acceptable. Now what are the limits? What kind of current can you pass without melting something, or going too non-linear? Does the hot tube degrade rapidly from outgassing? After all, there are all these stories about getting high power from an oil-cooled metal 6L6.

Hey, I've never run a 12AU7 with color in the plates. I've got no idea what happens. I suggested the 570 because that'd give the facts.

Regards,
Bill Hawkins bill@skeeter.frco.com

Date: Wed, 04 Jun 1997 04:08:37 +0100
From: W B Reese <radions@metro.net>
To: boatanchors@theporch.com (WB6TMY "TR" Reese)
Subject: 04VI97 NR3 CK619 WB6TMY
Message-ID: <3.0.32.19970604040420.00688454@mail.metro.net>
Mime-Version: 1.0
Content-Type: text/plain; charset="iso-8859-1"
Content-Transfer-Encoding: 8bit

Dan, WA0JRD, and Fellow Navigator Lovers,

In regard to:

22) EFJ Navigator CHWOOPP!!!!
by daniel wright <djw@unlinfo.unl.edu>

The Navigator is dear to my heart & I operated several for many years.

Performance can approach that of the other EFJ rigs by making the VFO the same as the others. If you will open the top cover of the VFO, you will see an empty hole where the 0A2 is placed in all other Johnson rigs. All that is necessary is to procure a socket of proper dimensions and mount it appropriately. This is an "invisible" mod, since the VFO is exactly the same as the others so equipped, and anyone not closely familiar with the Navigator will just assume it's like the others, in the unlikely event they look inside.

The problem stems from the fact that a VR tube doesn't have a perfect "knee." In the Navigator, the 0D3 regulates both the screen of the 6146 final and the VFO. The 6146 cannot operate without some screen current, and therefore a demand is placed on the VR tube in addition to the VFO. Giving the VFO it's own VR tube eliminates this problem.

Chirp can also be reduced by replacing the 6AU6 with a 6AH6 at the expense of extra heat & greater long term drift. On the other hand, a 6AK5 can be used with less heat and more chirp. Things are "flexible."

It's easy to over couple the final. This will produce less screen current on the 6146 and improve the regulation on the VFO. It will also reduce the efficiency of the final, which is not a big problem since it only runs low voltage anyway & is far below rated use. There's a possibility doing this may increase your chances of TVI. As I said, things are "flexible."

On many of the Navigators I had, tuning the 6CL6 buffer can have quite a pronounced effect on the chirp. One side of peak moving it up and the other side moving it down. Since there are many factors producing many different kinds of chirp, a multiple function chirp can often be "fine tuned" for

minimum warble. The trade off with this is you over drive or under drive the final. If you are willing to give up crystal control, you can mount a pot behind the octal socket with the shaft going through the center hole. This can regulate the screen voltage of the 6CL6 buffer and allow the tuning to be placed in the "best chirp" position. Things are "flexible."

If you ever get on the CW bands in a serious way, you will discover the crystal oscillator 6CL6 isn't really up to the task. Although in your rig it apparently sounds better than the VFO, you will generate plenty of complaints from the "Junior Ham Radio Police Force." (It's their job to promote perfectly uniform signals. Just wait until they discover fone ops have different voices!)

About the only thing I've found that wasn't "flexible" was the inability to produce a really good note. I've seen guys install a fourth stage for extra isolation, and all sorts of other wild fixes. None of them work. The best use I have seen of the Navigator is a high power VFO on an AM rig. An example would be using the Navigator in place of a Collins 310 when driving a 30K-1.

Good Luck my friend & I hope you can be my first acquaintance to succeed.

Very 73,

Tracy "TR" WB6TMY

```

...^          <<<<<
EöÿÖÖJfJÖÖÖÖÖÖÄÖÖ°
      ∞ Jf      ...Ö^
...ÖÖÖæÖÖ°»ÖÖÖÖÖ°  »ÖÖÖ^
»ÖÖÖÖÖÖÖÖÖÖÖÖÖÖÖÖÖÖ°
fl              fl              ex - RADIONS@aol.com

```

(View telegraph key in Dos Editor)

Date: Wed, 04 Jun 1997 04:08:39 +0100
From: W B Reese <radions@metro.net>
To: boatanchors@theporch.com (WB6TMY "TR" Reese)
Subject: 04VI97 NR4 CK220 WB6TMY
Message-ID: <3.0.32.19970604040457.0068ad74@mail.metro.net>
Mime-Version: 1.0
Content-Type: text/plain; charset="iso-8859-1"
Content-Transfer-Encoding: 8bit

My Dear Boatanchor Friends,

It should be easily possible for you to copy the following bulletin:

Many thanks to all the limp wire fans who pointed me in the right direction to obtain some "flex-weave". The list comes through again.

73,

Dick

Dick Dillman
WPE2VT W6AWO
<ddillman@igc.apc.org>
Collector of Heavy Metal:
Harleys, Willys and Radios Over 100lbs.

Date: Tue, 3 Jun 1997 21:28:54 -0700 (PDT)
From: Ken Gordon <keng@uidaho.edu>
To: William Hawkins <bill@skeeter.frco.com>
Cc: boatanchors@sco.theporch.com, glowbugs@www.atl.org
Subject: Re: outer limits of 12AX7
Message-ID: <Pine.BSF.3.95.970603212437.6934E-100000@piobaire.mines.uidaho.edu>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

On Tue, 3 Jun 1997, William Hawkins wrote:

> Anybody out there with a working Tektronix 570 curve tracer for tubes?
> There's been a discussion of tube ratings following the discovery that
> some handbook said a 12AX7 was good for 7.5 watts dissipation.

NO! Not dissipation:...OUTPUT!...in class B push-pull.

> Most
> other books disagree, but the 12AU7 is good for 5+ watts with both
> sections dissipating half that.
>

And the 12BH7 has about 3 times the plate area of the 12AX7. I looked last night. Further, all the tubes discussed here have the same base diagram so that one could wire up an amp as I discussed here a few days ago, and plug them all in one at a time and test them...which I intend to do.

Ken W7EKB

Date: Wed, 4 Jun 1997 00:38:54 -0400 (EDT)
From: WJoeW@aol.com
To: boatanchors@theporch.com
Subject: National FB-7 and FBX
Message-ID: <970604003836_588476867@emout18.mail.aol.com>

These receivers have been sold.

If I had 20 more, I could have sold them.

Joe
W5WBR

End of BOATANCHORS Digest 1476
